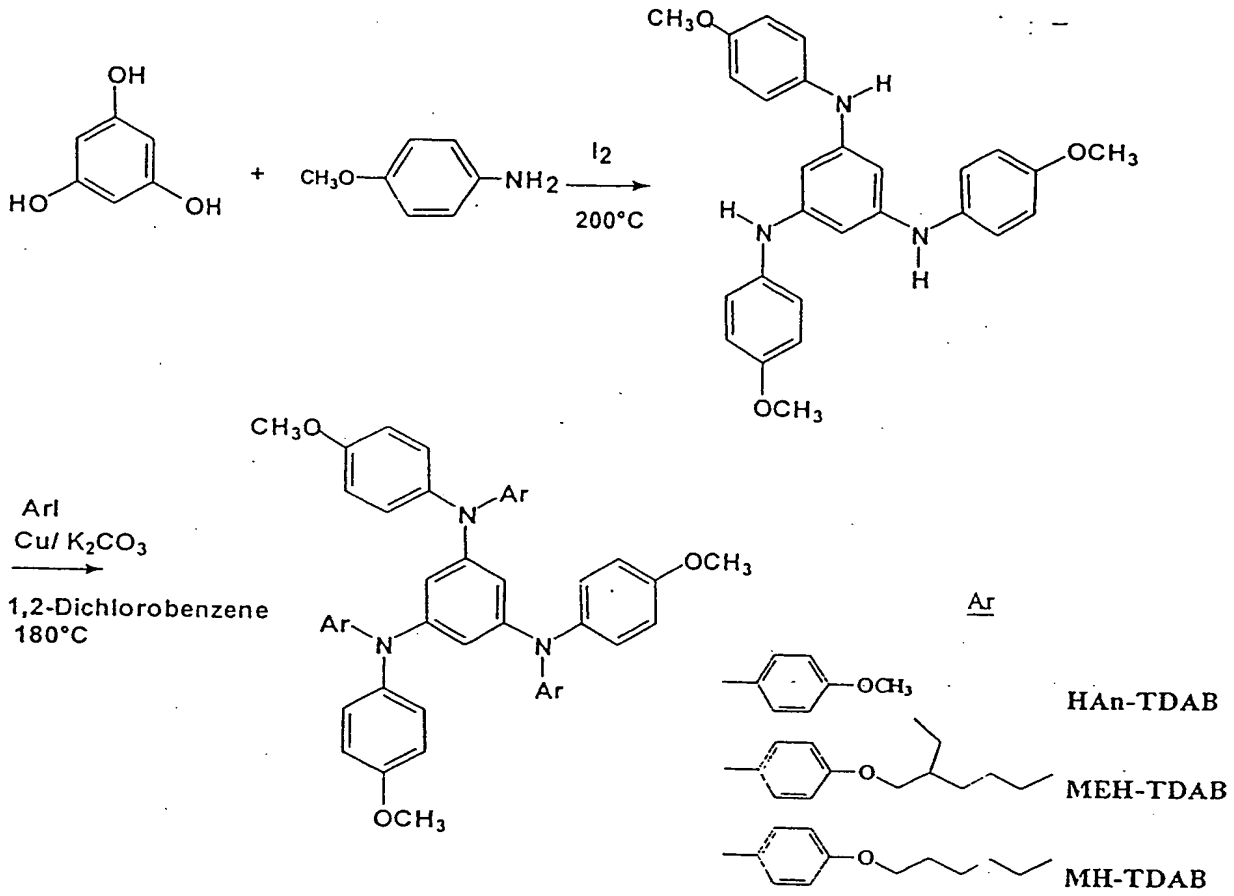
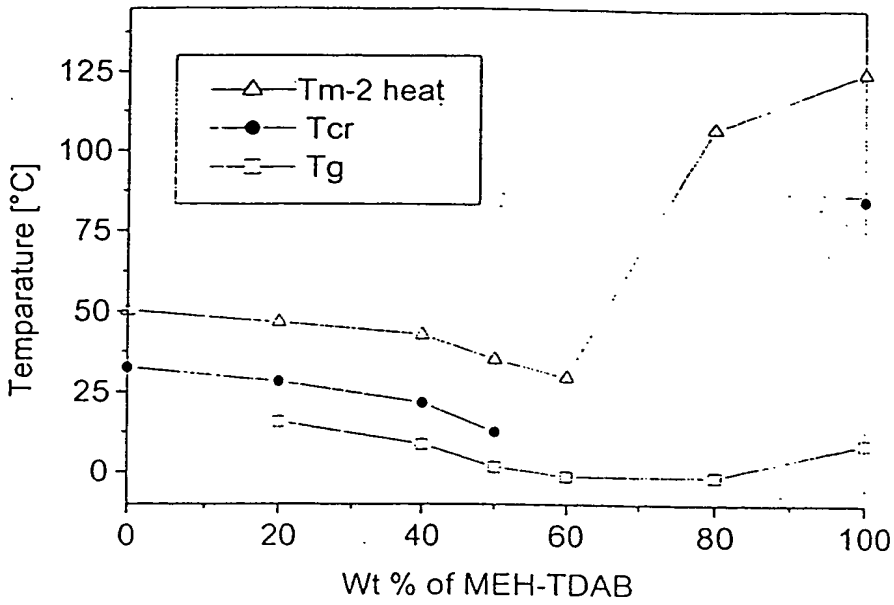

OH
HO
OH
+
CH3O
NH2
I2
200°C
CH3O
H
N
OCH3
H
N
N
H
OCH3
ArI
Cu/ K2CO3
1,2-Dichlorobenzene
180°C
CH3O
N
Ar
OCH3
Ar
N
N
Ar
OCH3
Ar
OCH3
HAn-TDAB
O
MEH-TDAB
O
MH-TDAB

Fig. 1

a)


Tm-2 heat
Tcr
Tg
Temparature [°C]
125
100
75
50
25
0
0
20
40
60
80
100
Wt % of MEH-TDAB

b)

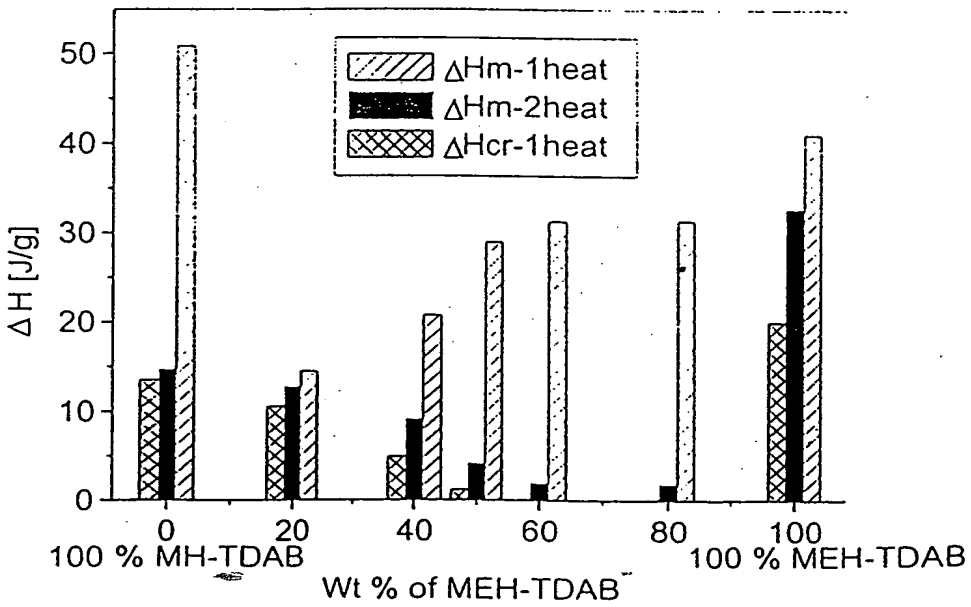

ΔHm-1heat
ΔHm-2heat
ΔHcr-1heat
ΔH [J/g]
50
40
30
20
10
0
0
20
40
60
80
100
100 % MH-TDAB
100 % MEH-TDAB
Wt % of MEH-TDAB

Fig. 2

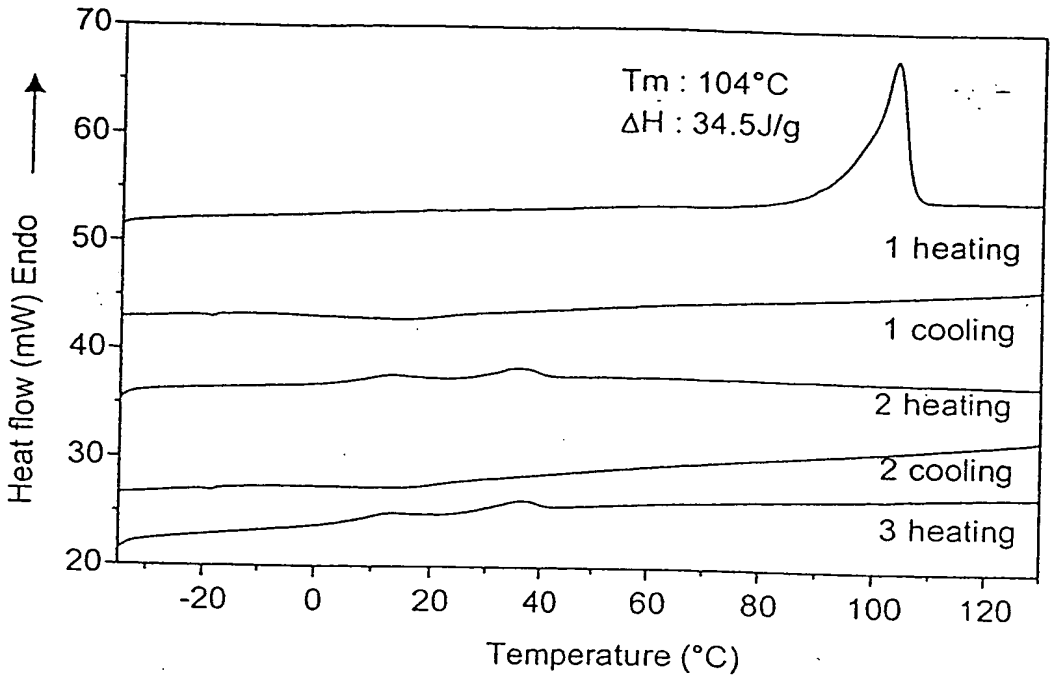

Tm : 104°C
ΔH : 34.5J/g
1 heating
1 cooling
2 heating
2 cooling
3 heating
Heat flow (mW) Endo
Temperature (°C)
70
60
50
40
30
20
-20
0
20
40
60
80
100
120

Fig. 3

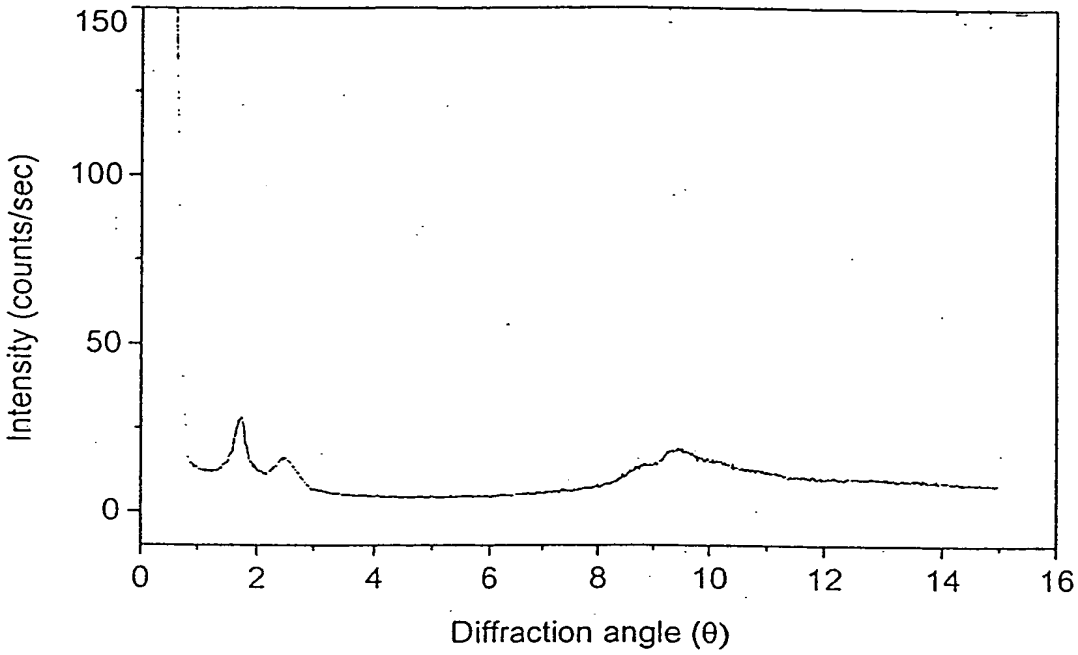

150
100
50
0
Intensity (counts/sec)
0
2
4
6
8
10
12
14
16
Diffraction angle (θ)

Fig. 4

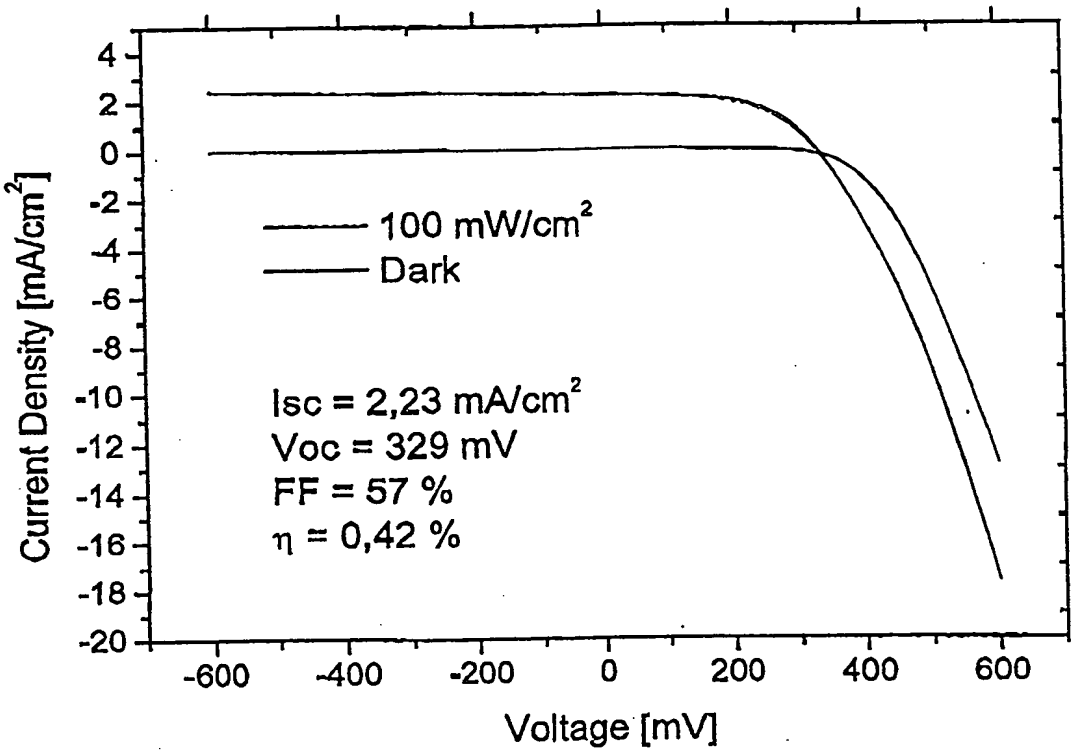

Current Density [mA/cm²]
Voltage [mV]
100 mW/cm²
Dark
Isc = 2,23 mA/cm²
Voc = 329 mV
FF = 57 %
η = 0,42 %
4
2
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-600
-400
-200
0
200
400
600

Fig. 6

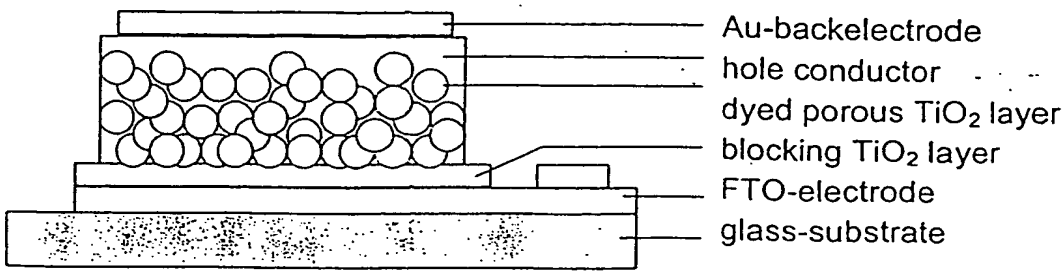

Au-backelectrode
hole conductor
dyed porous TiO_2 layer
blocking TiO_2 layer
FTO-electrode
glass-substrate

Fig. 5

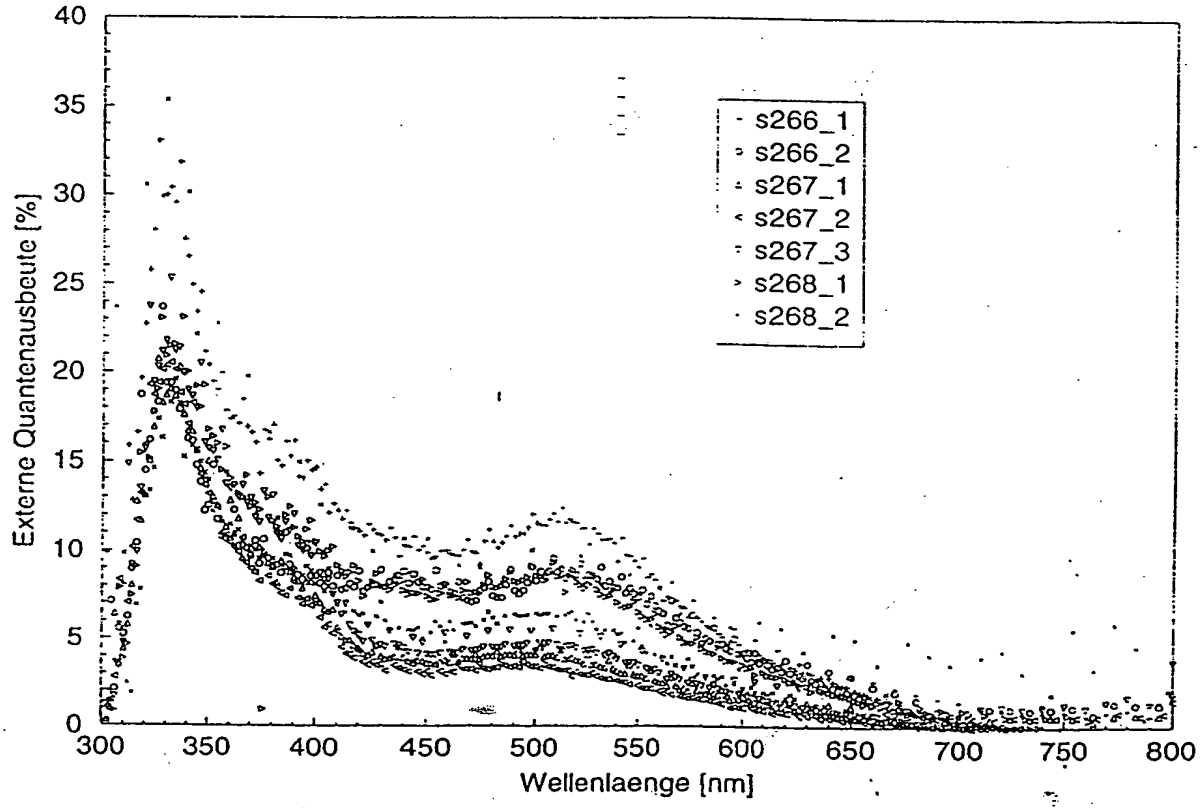

Externe Quantenausbeute [%]
Wellenlaenge [nm]
s266_1
s266_2
s267_1
s267_2
s267_3
s268_1
s268_2
0
5
10
15
20
25
30
35
40
300
350
400
450
500
550
600
650
700
750
800

Fig. 7

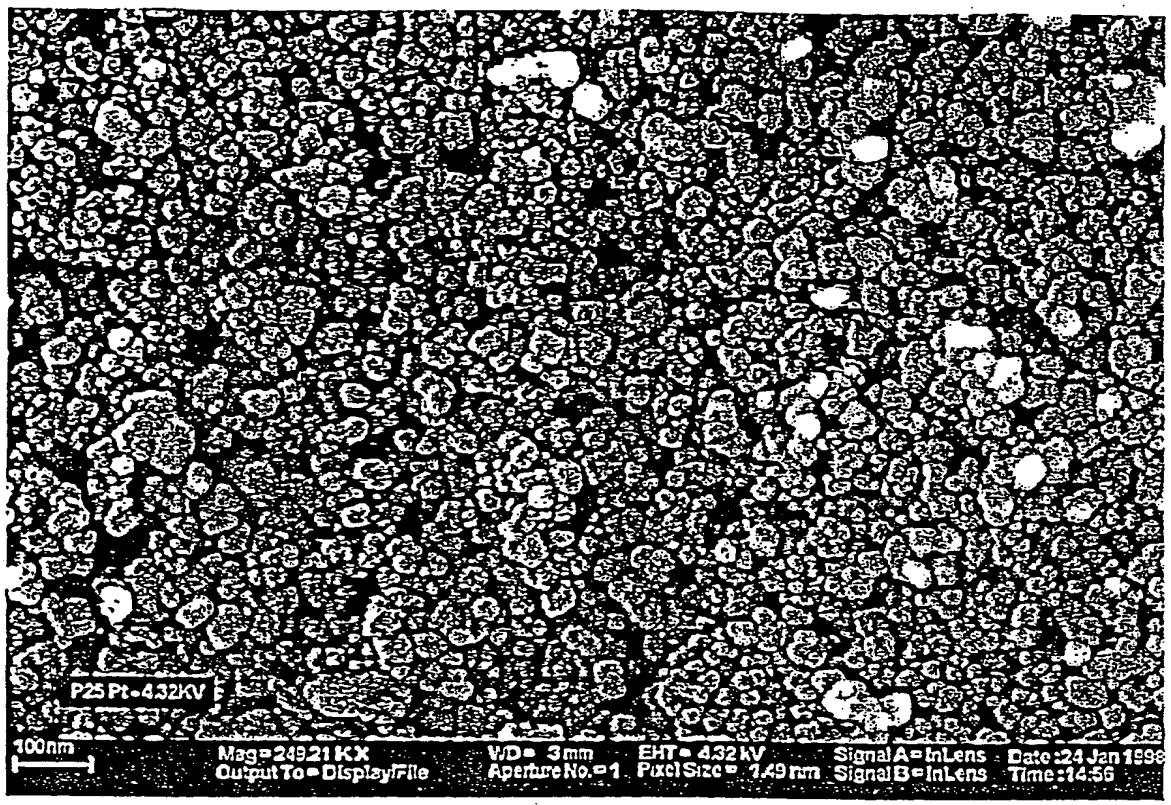


Fig. 8

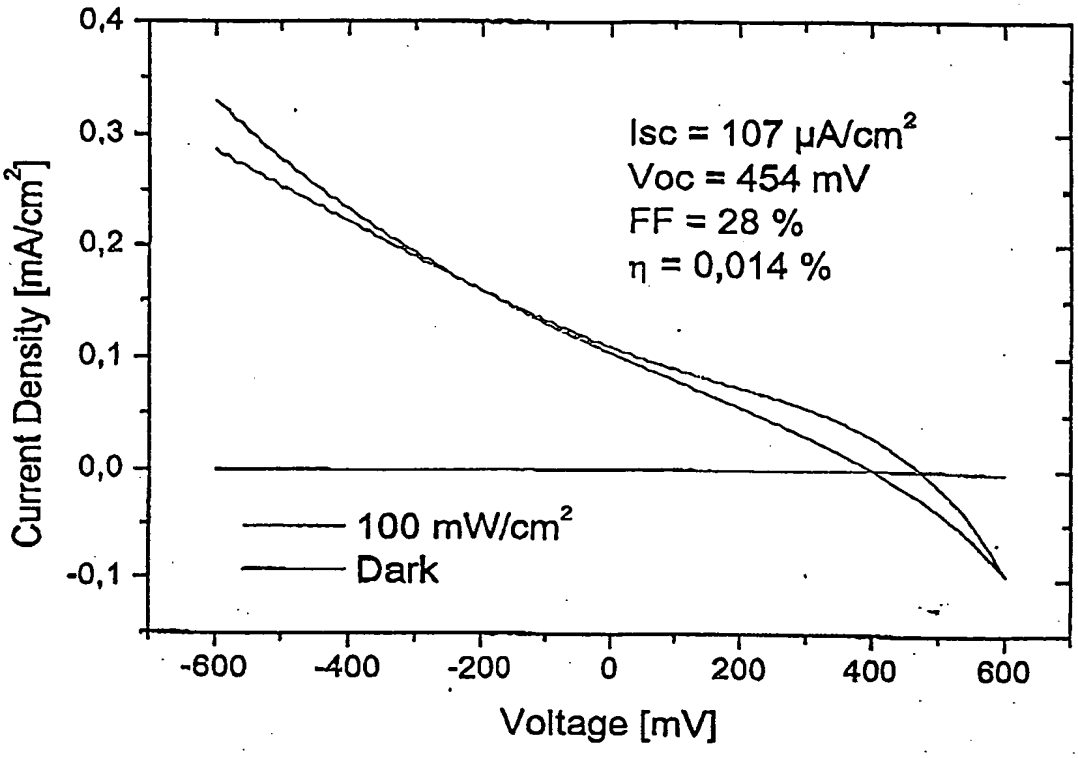

0,4
0,3
0,2
0,1
0,0
-0,1
Current Density [mA/cm²]
Isc = 107 µA/cm²
Voc = 454 mV
FF = 28 %
η = 0,014 %
100 mW/cm²
Dark
-600
-400
-200
0
200
400
600
Voltage [mV]

Fig. 9

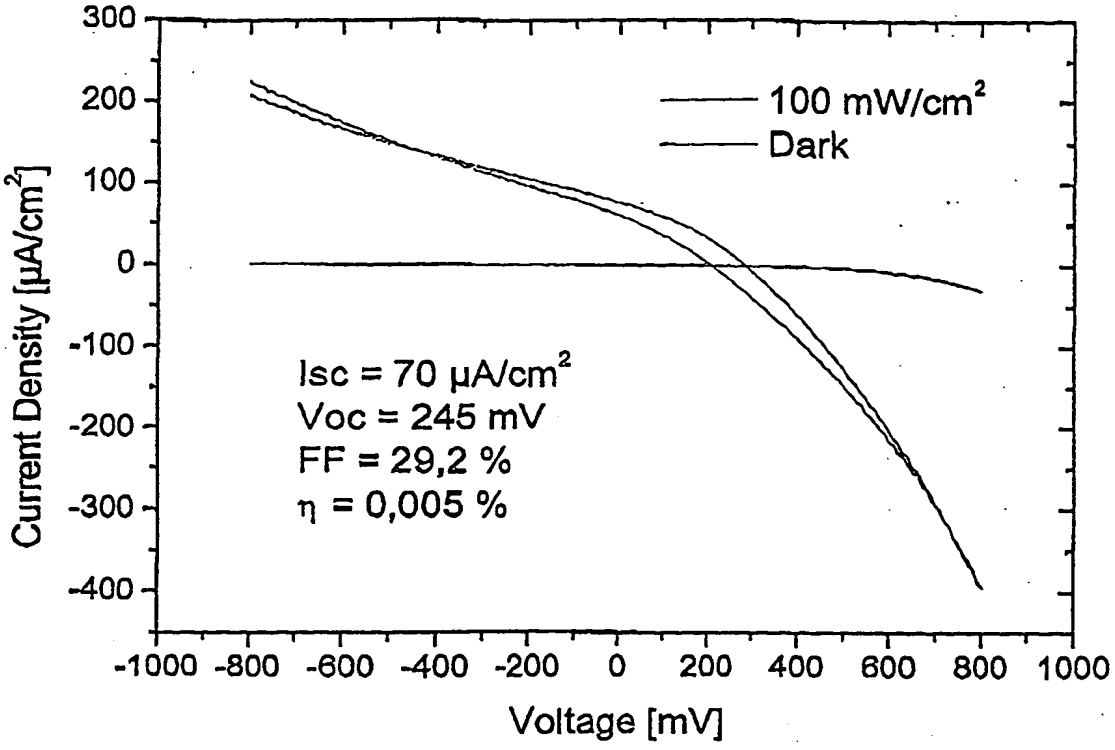
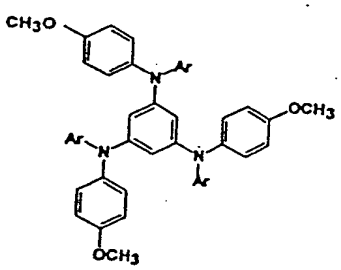

300
200
100
0
-100
-200
-300
-400
Current Density [μA/cm²]
-1000 -800 -600 -400 -200 0 200 400 600 800 1000
Voltage [mV]
100 mW/cm²
Dark
Isc = 70 μA/cm²
Voc = 245 mV
FF = 29,2 %
η = 0,005 %

Fig. 10



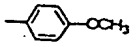
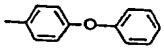
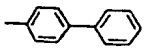
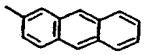
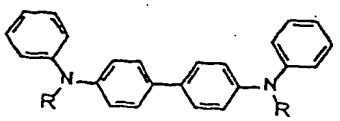
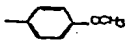
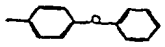
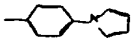
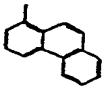
Compound Ar	T_g [°C]	T_{cr} [°C]	HOMO [eV]
	-	130	-4.98
	54	-	-5.07
	85	135	-5.11
	88	-	-5.13
	123	-	-5.07

Fig. 11



Compound R	DSC [a] T_g [°C]	DSC [a] T_m [°C]	CV HOMO [eV]
	70	228 [b]	- 5.15
	60	176	- 5.13
	56	153 [b]	- 5.06
	80	176 [c]	- 5.12
	85	- [d]	-
	85	270 [c]	- 5.10
	139	276	- 5.17

a) heating and cooling rate: 10K/min
b) C. Adachi, K. Nagai, N. Tamoto, Appl. Phys. Lett. 66, 2679, (1995)
c) T_m observed only in first heating d) no T_m observed up to 300°C

Fig. 12